# CHAPTER 1: OVERVIEW

## A. Welcome to the Advanced Technology Program.

The Advanced Technology Program (ATP), which began in 1990, is a rigorously competitive cost sharing program designed for the Federal government to work in partnership with industry to foster the development and broad dissemination of challenging, high-risk technologies that offer the potential for significant, broad-based economic benefits for the nation. Such a unique government-industry research partnership fosters the acceleration not only of dramatic gains in existing industries, but also acceleration of the development of emerging or enabling technologies leading to revolutionary new products, industrial processes and services for the world's markets, and work to spawn industries of the 21st century. The ATP provides multi-year funding to single companies and to industry-led joint ventures. The ATP accelerates technologies that, because they are risky, are unlikely to be developed in time to compete in rapidly changing world markets without such a partnership between industry and the Federal government. The ATP challenges industry to take on higher risk (but commensurately higher potential payoff to the nation) projects than they would otherwise. Proposers must provide credible arguments as to the project feasibility.

The statutory authority for the ATP is 15 U.S.C. Sec. 278n **(see Appendix A)**. The ATP implementing regulations are published at 15 CFR Part 295 **(see Appendix B)**. The Catalog of Federal Domestic Assistance (CFDA) number and program title for the ATP are 11.612, Advanced Technology Program (ATP).

## B. Competitions.

ATP recipients are selected through a highly competitive process. Annual notices are published in the *Federal Register* announcing the availability of funds to hold competitions and providing general information for the ATP competitions planned. The specific competition announcements and requests for proposals are published in the *Commerce Business Daily*. ATP also sends competition announcements to those on the ATP mailing list and posts announcements on the Internet at http://www.atp.nist.gov. These announcements provide the public with the specific information on the competitions, guidelines for submitting proposals, deadlines for proposal submission, dates and locations of Proposers' Conferences, etc.

## C. Who May Apply/Eligible Proposers.

Congress intended that the ATP focus on assistance to industry through projects led by for-profit companies that will create economic growth in the U.S. This is what distinguishes the ATP from Federal R&D programs for universities and governmental laboratories. Accordingly, only for-profit single companies and industry-led joint ventures may apply for ATP awards as described below.

1. **Single Company.** A small, medium, or large for-profit company.

2. **Joint Venture.** At least two separately owned for-profit companies, both of which are substantially involved in the R&D and both contributing towards the cost sharing requirement. The joint venture need not be a legally constituted entity. Most ATP joint ventures consist of companies who formally agree

to collaborate on the R&D, and establish an effective plan to commercialize the technology if successful. In addition to two separately owned for-profit companies, the joint venture may include additional for-profit companies, independent research organizations, universities, and/or governmental laboratories (other than NIST) which may or may not contribute funds (other than Federal funds) to the project and may or may not perform research and development.

A **U.S.-incorporated company (subsidiary) of a foreign-owned parent company which is incorporated in another country** may apply as a single company or as a partner of a joint venture if the company meets the conditions specified in Section (d)(9) of the ATP legislation **(see Appendix A)**. If the proposal involves a foreign-owned company, a finding will be made by NIST in accordance with 15 CFR 295.3 **(see Appendix B)** prior to final award selections. This finding will involve the collection of evidence that the country of incorporation of the participant's parent company (1) affords U.S.-owned companies opportunities comparable to those afforded to any other company to participate in government-funded programs similar to the ATP; (2) affords U.S.-owned companies local investment opportunities comparable to those afforded to any other company; and (3) affords adequate and effective protection for the intellectual property rights of U.S.-owned companies. NIST accepts responsibility for making this finding, and you need not provide information relating to this finding in your proposal.

While the ATP is not precluded from funding research performed outside the U.S. by either U.S.-owned or foreign-owned companies, the ATP selection criterion used to evaluate how economic benefits must accrue to the U.S. would normally result in proposals involving significant research performed outside the U.S. to be scored low.

If your company is neither U.S.-owned nor a U.S.-incorporated company that has a parent company incorporated in another country, your company is **NOT** eligible for funding under the ATP. A company owned by one or more non-U.S. citizen green card holders which is not a U.S.-incorporated company that has a parent company incorporated in another country, may apply for an ATP award but NO funding can be received by the company unless the ownership issue is resolved consistent with the ATP legislation prior to final award selections. If a proposal submitted by a non-U.S. citizen is selected as a semi-finalist, this issue will be raised at the oral review to determine whether this issue has been resolved, e.g., the owner has since become a U.S.-citizen or ownership has transferred to a U.S. citizen or citizens.

Universities, governmental laboratories, and independent research organizations cannot apply as single company proposers, however, they can participate in the ATP in two ways:

1. A university, governmental laboratory (excluding any NIST laboratory), or independent research organization can be a subcontractor to a single company or to a joint venture. (Note that if a subcontractor(s) perform the bulk of the R&D tasks, the proposal stands little chance of being selected.)

2. A university, governmental laboratory (excluding any NIST laboratory), or independent research organization can participate as joint venture partners. Any one of these three types of organizations can serve as the catalyst to organize a joint venture, however, of these three organizations, **only an independent research organization** may (a university or governmental laboratory **may not)** submit the proposal and administer the project provided that the following two conditions are met:

a. The joint venture includes at least two separately owned for-profit companies, both of which are substantially involved in the R&D and both contributing towards the cost sharing requirement, and

b. The joint venture is industry-led, i.e., the industrial partners must define the research agenda and the commercialization plans based on their needs, and must have the leadership role in programmatically steering the project.

There is an important provision of the ATP legislation regarding patents. Patents resulting from ATP-sponsored R&D projects must be held by for-profit companies incorporated in the U.S. A university, governmental laboratory, or independent research organization **cannot** retain title to patents, although such organizations can receive mutually agreeable payments (either one-time, or continuing) from the company or companies holding title to the patent. If your organization plans to be involved in an ATP project and if your organization is not a for-profit company, make sure your legal department can accept this provision. Some ATP awards have been jeopardized after selections were made when a non-industrial participant in a project discovered this provision and found it unacceptable. The ATP cannot waive this legislatively mandated provision.

## D. Funding Amounts, Award Period, and Cost Sharing Requirements.

1. Single company recipients can receive up to **$2 million** for R&D activities for up to **3 years**. ATP funds may only be used to pay for direct costs for single company recipients. Single company recipients are responsible for funding all of their overhead/indirect costs. Small and medium size companies applying as single company proposers are not required to provide cost sharing of direct costs, however, they may pay a portion of the direct costs in addition to all indirect costs if they wish. Large companies applying as single company proposers, however, **must cost share at least 60 percent** of the yearly total project costs (direct plus indirect costs). A large company is defined as any business, including any parent company plus related subsidiaries, having annual revenues in excess of $2.721 billion. (Note that this number will likely change for future competitions and, if so, will be noted in future annual announcements of availability of funds and ATP Proposal Preparation Kits.)

   Now and then a start up company applying to ATP claims that they have no indirect costs and that the ATP project, if funded, would be the *only* project the company would have, therefore, all costs would be direct. When this assertion is made, it raises two concerns for ATP:

   a. If the company's accounting system has been designed by a Certified Public Accounting (CPA) firm consistent with generally accepted accounting principles, then certain expense items should fall into indirect cost categories, even for a new start up company with only one project. To do otherwise suggests to ATP that either the company is inexperienced about its fiscal affairs or the company has no intent of carrying on any business other than the ATP project -- either of which is of concern to ATP. (For example, at some point the company will begin to engage in commercialization activities which cannot be paid for by ATP.)

   b. ATP projects are supposed to be industry/government cost shared projects. If a company seeks to recover 100 percent of the project costs from ATP, this violates the spirit of the ATP statute because the company has no funds of its own at risk. In addition, if the firm is not sharing in the

risk of the investment with ATP, it gives the appearance that the company is not very committed to moving the technology into the marketplace. A proposal claiming no indirect costs, therefore, is likely to score too low to receive an award from the ATP.

2. Joint ventures can receive funds for R&D activities for up to **5 years** with no funding limitation other than the announced availability of funds. However, ATP funding must be for a minority share of the yearly total project costs. Joint ventures **must** cost share **more than 50 percent** of the yearly total project costs (direct plus indirect costs).

3. Funds derived from Federal sources **may not** be used to meet the cost sharing requirement. Additionally, subcontractors may not contribute towards the cost sharing requirement.

4. Small and medium size single companies' cost sharing of any direct costs, and large single company and joint ventures' cost sharing of direct and indirect costs must be clearly identified in a proposal. If a proposal is selected for funding, the cost sharing amount will be made a part of the award; must meet the criteria stipulated in the administrative requirements of 15 CFR Part 14, *Uniform Administrative Requirements for Grants and Cooperative Agreements with Institutions of Higher Education, Hospitals, other Non-Profit and Commercial Organizations* (http://www.doc.gov/oebam/cfr14.htm); must be allowable under the applicable Federal cost principles; and is subject to audit.

5. Section 295.2(l) of the ATP implementing regulations **(see Appendix B)**, defines matching funds or cost sharing as follows:

> *The term "matching funds or cost sharing" means that portion of project costs not borne by the federal government. Sources of revenue to satisfy the required cost share include cash and in-kind contributions. Cash contributions can be from recipient, state, county, city, or other non-federal sources. In-kind contributions can be made by recipients or non-federal third parties (except subcontractors working on an ATP project) and include but are not limited to equipment, research tools, software, and supplies. Except as specified at Sec 295.25 of this regulation, the value of in-kind contributions shall be determined in accordance with OMB Circular A-110, Subpart C, Section 23. The value of in-kind contributions will be prorated according to the share of total use dedicated to the ATP program. ATP restricts the total value of in-kind contributions that can be used to satisfy the cost share by requiring that such contributions not exceed 30 percent of the non-federal share of the total project costs. ATP shall determine the allowability of matching share costs in accordance with applicable federal cost principles.*

6. Many proposers ask whether independent research and development (IR&D) funds, as defined in Federal Acquisition Regulation Part 31.205-18, may be used to meet the ATP cost-sharing requirement. There are two aspects to this question:

   a. Proposers **MAY NOT** classify the nonfederal share of the ATP project costs as an IR&D expense that is subsequently allocated, either as a separate cost or as an element of a general & administrative (G&A) cost pool, to federally-funded procurement contracts, grants, or other agreements.

b. Proposers **MAY** allocate IR&D or G&A costs, which include IR&D as an element, to an ATP project, provided that the IR&D/G&A rate applied to the ATP project is a federally-approved indirect cost rate.

The fundamental expectation for cost sharing is that the proposer's share of the ATP project costs be funded from non-federal sources, such as retained earnings or profit; not funds included as an indirect expense which is subsequently allocated for reimbursement under federally-funded procurement contracts, grants, and other agreements. Recovering the proposer's cost share as part of its IR&D/G&A allocation to other federally-funded projects would be contrary to the level of financial commitment expected of proposers by the ATP statute.

## E. Selection Criteria.

The evaluation criteria to be used in selecting any ATP proposal for funding, and their respective weights, are listed below. No proposal will be funded unless ATP determines that it has scientific and technological merit and that the proposed technology has strong potential for broad-based economic benefits to the nation. Additionally, no proposal will be funded that does not require Federal support, that is product development rather than high risk R&D, that does not display an appropriate level of commitment from the proposer, or does not have an adequate technical and commercialization plan.

1. **Scientific and Technological Merit (50%).** The proposed technology must be highly innovative. The research must be challenging, with high technical risk. It must be aimed at overcoming an important problem(s) or exploiting a promising opportunity. The technical leverage of the technology must be adequately explained. The research must have a strong potential for advancing the state of the art and contributing significantly to the U.S. scientific and technical knowledge base. The technical plan must be clear and concise, and must clearly identify the core innovation, the technical approach, major technical hurdles, the attendant risks, and clearly establish feasibility through adequately detailed plans linked to major technical barriers. The plan must address the questions of "what, how, where, when, why, and by whom" in substantial detail. The Program will assess the proposing team's relevant experience for pursuing the technical plan. The team carrying out the work must demonstrate a high level of scientific/technical expertise to conduct the R&D and have access to the necessary research facilities.

2. **Potential for Broad-Based Economic Benefits (50%).** The proposed technology must have a strong potential to generate substantial benefits to the nation that extend significantly beyond the direct returns to the proposing organization(s). The proposal must explain why ATP support is needed and what difference ATP funding is expected to make in terms of what will be accomplished with the ATP funding versus without it. The pathways to economic benefit must be described, including the proposer's plan for getting the technology into commercial use, as well as additional routes that might be taken to achieve broader diffusion of the technology. The proposal should identify the expected returns that the proposer expects to gain, as well as returns that are expected to accrue to others, i.e., spillover effects. The Program will assess the proposer's relevant experience and level of commitment to the project and project's organizational structure and management plan, including the extent to which participation by small businesses is encouraged and is a key component in a joint venture proposal, and

for large company single proposers, the extent to which subcontractor/subrecipient teaming arrangements are featured and are a key component of the proposal.

## F. Proposal Review and Selection Process.

At the beginning of each round of ATP competitions, specialized Source Evaluation Boards (SEBs) are established to ensure that all proposals receive careful consideration. Each SEB is comprised of technical experts as well as specialists with backgrounds in business and economics. The ATP supplements the SEBs with outside technical reviewers, generally Federal government experts in the specific technology of the proposal. Independent business experts are also hired on a consulting basis. These business experts include high-tech venture capitalists, people who teach strategic business planning, and retired corporate executives from large and small high-tech businesses, economists and business-development specialists. All SEB members and outside reviewers must sign non-disclosure statements, agree to protect proprietary information, and must certify that they have no conflicts of interest. The following steps are involved in the selection process:

1. **Preliminary Screening.** All proposals received by the competition deadline are first screened for conformance to the ATP regulations and the annual *Federal Register* program announcement. In previous competitions, about 10 percent of the proposals have been rejected at the preliminary screening stage. Typical but not exclusive of the reasons for eliminating a proposal at this stage is that the proposal is deemed to have serious deficiencies in either the technical or business plan; involves product development rather than high risk R&D; is not industry-led; is significantly overpriced or underpriced given the scope of the work; or does not meet the cost sharing requirement. NIST will also examine proposals that have been submitted to a previous competition to determine whether substantive revisions have been made to the earlier proposal, and if not, may reject the proposal or forward it to a later stage of the review process based upon the earlier review. The ATP reserves the right to use previously completed reviews for resubmitted proposals that were evaluated during a previous competition if the resubmitted proposals have not been revised significantly. Proposals determined to be complete then proceed to technical and business reviews.

2. **Technical and Business Reviews**. Proposals are evaluated with regard to the technical-related selection criterion by technical experts. Proposals are also evaluated with regard to the business-related selection criterion by business experts. When the technical reviews of each proposal are completed, the proposal and the reviewers' comments are considered by a Technical Panel consisting of the technically oriented members of the SEB. The key technical strengths and weaknesses of each proposal are documented and a recommendation is made to the full SEB. Similarly, when the business reviews of each proposal are completed, the proposal and the reviewers' comments are considered by a Business Panel consisting of the business oriented members of the SEB. The key business strengths and weaknesses of each proposal are documented and a recommendation is made to the full SEB.

3. **Semi-Finalists Identified and Oral Reviews of Full Proposals**. Following completion of the technical and business reviews, the proposals are evaluated by the full SEB. The proposals deemed by the SEB to be most meritorious with regard to the selection criteria are identified as semi-finalists, and the proposers are invited to NIST for oral reviews. This determination is made in consideration of available funding and the requested funding for the highest quality proposals. Proposals not identified

as semi-finalists are removed from further consideration. In past competitions, roughly 15 percent of the submitted proposals reached the oral review stage. Invitations to an oral review are generally made two weeks prior to the scheduled oral review. Prior to the oral review, semi-finalists will be required to submit the remaining prescribed forms as stipulated in this Chapter 2 of this Kit and may be requested to provide written responses to questions.

A limited number of representatives (no more than four for single companies and no more than seven for joint ventures) are allowed to participate in this oral review at NIST. We may request a site visit, if deemed appropriate by NIST. The oral review focuses on detailed technical and business questions. **Proposers are encouraged to briefly update the SEB on new technical or business developments since submission of the proposal, but the majority of the one- to two-hour review is devoted to questions and answers.**

4. **SEB Ranking**. Following oral reviews, the semi-finalist proposals are ranked by the SEB. The information contained in the proposals, the reviewers' comments, and the information presented at the oral reviews are taken into account in the ranking process. This information is evaluated based on the ATP selection criteria.

5. **Final Selection**. Final decisions regarding awards are made by the Source Selecting Official who receives the ranked list of proposals from the SEB. In past competitions, half to two-thirds of the proposals that underwent oral reviews received awards.

## G. Unallowable Projects and Costs.

There are certain types of projects that ATP will not fund because they are inconsistent with the ATP mission. These include:

1. Straightforward improvements of existing products or product development.

2. Projects that are predominately basic research.

3. Pre-commercial scale demonstration projects where the emphasis is on demonstration that some technology works on a large scale or is economically sound rather than on R&D.

4. Projects involving military weapons R&D or R&D that is of interest **only** to some mission agency rather than to the commercial marketplace.

5. Projects that ATP believes would likely be completed with or without ATP funds in the same time frame or nearly the same time frame.

Furthermore, there are certain types of costs that are unallowable under ATP projects regardless of whether they are allowable under the Federal Acquisition Regulations (FAR) or Office of Management and Budget (OMB) cost principles. These include:

1. Construction of new buildings or extensive renovations of existing laboratory buildings. However, construction of experimental research and development facilities to be located within a new or existing building are allowable provided that the equipment or facilities are essential for carrying out the proposed scientific and technical project and are approved by the Grants Officer.

2. Indirect costs for single companies are unallowable for reimbursement with Federal funds and must be absorbed by the single companies. Note that with large businesses submitting proposals as single company proposers, indirect costs absorbed by the large businesses may be used to meet the cost sharing requirement.

3. Profit, management fees, interest on borrowed funds, or facilities capital cost of money.

4. Bid and proposal (B&P) costs, tuition costs, marketing surveys or commercialization studies, and general business planning unless they are incorporated into a Federally approved indirect cost rate. (However, a university participating in an ATP project as a subcontractor or as a joint venture partner may charge ATP for tuition remission or other forms of compensation in lieu of wages paid to university students working on ATP projects only as provided in OMB Circular A-21, section J.41. In such cases, tuition remission would be considered a cash contribution rather than an in-kind contribution.)

5. Single company and joint venture participants may not subcontract to another part of the same company or to another company with identical or nearly identical ownership. Work proposed by another part of the same company or by another company with identical or nearly identical ownership should be shown as funded through interorganizational transfers that do not contain profit. Interorganizational transfers should be broken down by budget categories in a similar manner to all other tasks.

## H. Most Common Reasons for Failure of an ATP Proposal.

The most common reasons for failure of an ATP proposal are:

1. Lack of clear definition of technical barriers which prevent progress on the commercial front. Low-scoring proposals often fail to answer the question "What technical issue is preventing us from exploiting this technology for this class of applications?"

2. Lack of an innovative approach to defeat recognized technical barriers.

3. Lack of detail in the technical plan or failure to clearly describe the paths to innovation.

4. Too general a description of the market opportunity with no specific market segment analysis (size, sales, potential customers, and competitors).

5. Lack of detail on the approach to be taken to commercialize the technology after the ATP project ends, or failure to address market opportunity.

The most common problem with 2. and 3. is that proposals commit simply to work on the technical barriers and provide no evidence of innovation in how the barriers will be addressed. This diminishes the possibility

of broad-based scientific or engineering advances compared to the state-of-the art since only the goals dominate and not the scientific innovation of the approach.

## I. Proposal Submission Deadlines.

The deadlines for submission of proposals will be stipulated in the competition announcements. This deadline also applies to submission of any proposal amendments (late documentation), e.g., missing or revised pages or additional information. Experience has shown that in every competition a few people plan to hand-carry their proposals to NIST at the last hour, but miss the deadline because of late airplanes or traffic tie-ups. Experience has also shown that a few proposers miss a page in duplication, want to redraw a figure, or want to update their proposal after the submission deadline. **But, the deadlines are absolutely firm and enforced to the minute. NO EXCEPTIONS CAN BE MADE FOR EXTENUATING CIRCUMSTANCES.** Any late proposals and late documentation will be returned to the proposer without consideration. Be aware that "guaranteed" overnight delivery services sometimes fail to make their deliveries within 24 hours. Don't take a chance - proofread your proposal carefully and send it in early!

## J. Where to Submit Proposals.

National Institute of Standards and Technology
Advanced Technology Program
100 Bureau Drive, Stop 4701
Administration Building 101, Room A407
Gaithersburg, MD 20899-4701.

## K. Proposers' Conference/Public Meeting.

The ATP holds one or more proposers' conferences in conjunction with each new round of competitions. These meetings provide general information regarding the ATP, tips on preparing good proposals, and an opportunity for audience questions. No technical discussions of specific proposals can take place at this public meeting. Attendance is not required, and many successful ATP recipients have not attended a proposers' conference. However, those who have attended have said they found the session helpful. Each ATP competition announcement will include information regarding the time and place of the conference. If you plan to attend a conference, please complete and return the ATP Proposers' Conference Registration Form **(see Exhibit 1)**. Receipt of your advance registration form will assist us in making adequate provisions for attendees.

## L. Research Projects Involving Vertebrate Animals.

Research under an ATP project involving vertebrate animals must be in compliance with the National Research Council's "Guide for the Care and Use of Laboratory Animals" which can be obtained from National Academy Press, 2101 Constitution Ave., NW, Washington, DC 20055. Information on this can also be found at http://www.nap.edu. The Institutional Animal Care and Use Committee (IACUC) associated with the proposing organization(s) must approve an Animal Study Proposal (ASP) detailing all research involving vertebrate animals before NIST Grants Officer review and release of funds. If

the IACUC has reviewed and approved the ASP, a copy should accompany the ATP proposal. If IACUC approval is not available at the time of proposal submission, please note that a copy of the approved ASP for animal research tasks beginning in the first year of the project, must be submitted at the time of oral review if the proposal is selected as a semifinalist. **An example of an ASP or a similar ASP to what may eventually be submitted to an IACUC for review is NOT acceptable. If the ASP includes tasks not applicable to the ATP project, or if the ASP is supported by multiple sources of funding, include a brief description of what portions of the ASP apply specifically to the ATP project.**

In addition to the ASP, the proposer must supply copies of all appropriate assurances or institutional certifications (with expiration dates) applicable to the types of animals involved. The assurances or institutional certifications should include at a minimum the U.S. Department of Agriculture (USDA) Animal Welfare Act registration certificate, or, if you are proposing to use animals not covered under the Animal Welfare Act (rodents, birds, and/or fish), the Association for Assessment and Accreditation of Laboratory Animals Care International (AAALAC) accreditation. Alternatively, a copy of an Animal Welfare Assurance issued by the Office of Protection from Research Risk (OPRR), National Institutes of Health (NIH) can be provided. If there is no existing IACUC to review and approve research tasks involving use of vertebrate animals in the first year of the project, the proposer is advised that it is unlikely that an award can be issued. This is due to the fact that the process to establish institutional certification can take 6 months or more; therefore, near completion of institutional certification when the proposal is submitted is strongly advised. The prohibition on the federal conduct and funding of human cloning does not apply to animal cloning. If the proposal is selected for funding, and research involving vertebrate animals is anticipated beyond the first year of the project, the above documentation must be submitted to and approved in writing by the NIST Grants Officer before funds can be released for those out-year tasks.

The above regulations do not apply to proposed research using pre-existing images of animals (e.g. a wildlife documentary, or pictures of animals in newscasts, etc.), or to research plans that ***do not*** include live animals that are being cared for, euthanased, or used by the project participants to accomplish research goals, teaching, or testing. These regulations also do not apply to obtaining animal materials from commercial processors of animal products, or to animal cell lines or tissues from tissue banks. If you have any questions regarding research projects involving vertebrate animals, please call the ATP Director of Chemistry and Life Sciences, Linda Beth Schilling at 301-975-2887 for additional guidance.

## M. Research Projects with Human Subjects, Human Tissue, Data or Recordings Involving Human Subjects.

This section outlines the regulations and policies governing the ATP regarding the use of human subjects in research. The regulations define research involving human subjects more broadly than many investigators realize. Research involving human subjects may include activities such as the use of image and audio recordings of people, taking surveys or using survey data from children, using databases containing personal information, and other activities that may not be commonly construed to involve human subjects compared to more typical biomedical research activities. **The purpose of the regulations and policies is to protect human subjects from risk of harm resulting from the**

**research activities themselves or publication of research results. Personal harm may include placing a person at risk of criminal or civil liability or be damaging to the subjects' financial standing employability or reputation, in addition to the traditional concerns about personal health and safety risks.** To assist proposers in identifying when research involves human subjects, as defined by the regulations, we have developed a Human Subjects Checklist (Exhibit 2). Please use this checklist to help you identify what parts of this section you should address in your proposal. If you have any questions regarding this information, please call the ATP Director of Chemistry and Life Sciences, Linda Beth Schilling at 301-975-2887 for additional guidance.

Research under an ATP project involving human subjects or data, images, tissue and **cells/cell lines (including those used for control purposes)** from human sources must be in compliance with Department of Commerce regulations entitled "Protection of Human Subjects," 15 CFR Part 27 (http://www.doc.gov/oebam/gforms.htm), which require that recipients whose research involves human subjects maintain appropriate policies and procedures for the protection of human subjects. **Research under this rule means a systematic investigation, including research, development, testing and evaluation, designed to develop or contribute to generalizable knowledge.** Activities that fall within this definition constitute research for purposes of this rule, whether or not they are conducted or supported under a program that is considered research for other purposes. For example, using medical databases/records, conducting employee surveys, human testing of computer software or video quality, and collecting data from voice video, digital or image recordings that include human subjects generally fall within the scope of this rule if the knowledge derived from the research is generalizable. A human subject in these types of research activities may be at risk for exposure of private information that could cause the person harm or discomfort.

Currently, ATP does not approve human subjects research that takes place in a foreign country as part of an ATP project. **In addition, ATP typically does not accept foreign sources of human tissue, cells or data, even if the tissue, cells or data may qualify for an exemption under the rule. However, ATP will consider foreign sources of tissue, cells and data on a limited basis if the source is scientifically recognized as unique, an equivalent source is unavailable within the U.S., an alternative approach is not scientifically of equivalent merit, and the specific use qualifies for an exemption under the rule.**

Additional Presidential policies, statutes, regulations, and guidelines have been issued concerning types of research activities involving human subjects. NIST may not be directly named in these statutes and regulations; however, to assure that research funded by NIST involving human subjects is consistent with national policy, NIST hereby declares that it will fully adhere to these requirements. Therefore, research projects involving the protected classes of human subjects must adhere to the National Institutes of Health (NIH) regulations found at 45 CFR Part 46, Subparts B, C, and D (http://www.nih.gov:80/grants/oprr/humansubjects/45cfr46.htm). Protected classes include pregnant women, human in vitro fertilization, fetuses (all in Subpart B), prisoners (Subpart C), and children (Subpart D). If data, images or specimens are from or involve a protected class, the research must adhere to these requirements. Some examples of research involving protected classes include: medical test data from children, software usability test results involving prisoners, surveys with pregnant women as subjects, tissue and cell donations from fetal sources.

**NIST applies 45 CFR 46, Subpart B to all types of gestational tissue, regardless of the source. Thus any project involving human gestational tissue (including yolk sacs, non-full-term placentae, tissue or cell lines derived from a non-viable fetus or fetal tissues/cells acquired through a third party) regardless of the source must meet the requirements in 45 CFR 46, Subpart B.** Research projects involving the transplantation of fetal tissue into human subjects must adhere to Section 111 of the NIH Revitalization Act of 1993, 42 U.S.C. Section 289g-1 (http://www.nih.gov:80/grants/oprr/humansubjects/publiclaw103-43.htm). In addition, Section 112 of the NIH Revitalization Act of 1993, 42 U.S.C. Section 289g-2, contains a criminal statute prohibiting all purchases of fetal tissue for valuable consideration whether or not NIH or NIH funding is involved. Fetal research must adhere to Section 498(b) of the Public Health Service Act, 42 U.S.C. Section 289g. Embryo research must adhere to Section 513 of the Departments of Labor, Health and Human Services, and Education, and Related Agencies Appropriations Act of 1998, Public Law 105-78, 111 Stat. 1467 (http://www.nih.gov/grants/guide/notice-files/not98-013.html). Research involving xenotransplantation into human subjects must adhere to the FDA guidelines published at 61 FR 49919 (September 23, 1996) (http://www.fda.gov/cber/gdlns/xeno.txt). All research projects will adhere to the Presidential Directive, 33 Weekly Comp. Pres. Doc. 281 (March 10, 1997) (http://www.nih.gov/grants/policy/cloning_directive.htm), prohibiting the federal conduct and funding of research involving human cloning. This prohibition does not apply to the federal conduct and funding of research involving animal cloning. In addition, proposers are reminded that ATP only rarely supports research as part of Phase I clinical trials; this type of research must be judged to be consistent with the ATP scientific and technological merit selection criterion.

Pursuant to the above, any tasks in the proposal involving research with human subjects or human tissue, that are not exempt under 15 CFR Part 27.101(b), must be approved by an Institutional Review Board (IRB) and the NIST Grants Officer before funding will be released. If the proposing organization(s) does not have an IRB, then the proposer may either establish an appropriate oversight relationship with an IRB from an institution with a multiple project assurance (MPA) on file with the Office of Protection from Research Risks (OPRR) at NIH, or in some circumstances (see item 3 below) create an IRB in accordance with the regulations. Institutions with current MPAs are listed on the internet by state with their MPA number at http://grants.nih.gov/grants/oprr/humansubjects/assurance/mpaa-h.htm. If there are research tasks proposed within the first year of the project that involve human subjects, human tissue, data, or video collected about human subjects the proposer must submit one of the following for each use of human subjects in the project, either with the proposal or at the time of oral review if selected as a semifinalist. A proposal may contain more than one use of human subjects requiring different types of documentation for NIST review. For example, a project may have multiple exemptions, or one exemption and several deferrals, or an IRB review, a deferral and several exemptions. Projects with human subjects research in the first year must supply either item 1 or item 2 by the time of the oral review. Projects with human subjects in the outyears of the project must supply item 3. **Projects with protected classes subject to Subpart B in the ANY year of the project MUST provide item 2 by the time of the oral review; the other items do not apply.**

1. **EXEMPTION DOCUMENTATION: (This option does not apply to research governed by 45 CFR 46, Subparts B and C.)** Proposers must provide detailed documentation for NIST to make an independent determination of whether or not the task(s) involving human subjects is exempt from

the rule according to 15 CFR Part 27.101 (b). **NIST does not accept an exemption claim from the proposer without this independent review.** This is consistent with the NIH OPRR guidelines on exemption determinations (OPRR Reports #95-02, May 5, 1995). **Appendices C and D provide the questions that need to be addressed for the proposer to prepare appropriate documentation that supports an exemption request.** If an IRB review of an exemption claim has been performed, provide a copy of the IRB approval of the exemption. Exemption documentation is needed for all data, tissues or cells from non-living donors, or for existing data or specimens of human origin obtained or purchased from third parties. In most cases, exemptions do not apply to research involving protected classes of human subjects, see item 2.a. below. **NOTE:** Data (e.g., video images, medical records, retail sales transactions etc.) or specimens (e.g., cells, tissue, blood etc.) from human sources that are not pre-existing DO NOT qualify for an exemption under 15 CFR 27.101 (b) (4). Existing means collected (i.e. on the shelf) prior to the research for a purpose other than the proposed research or excess material obtained through a procedure not related to the proposed project (OPRR 10/1/98 Human Subjects Regulation Decision Charts).

2. **IRB REVIEW DOCUMENTATION FOR NON-EXEMPT RESEARCH:** Documentation under either a. or b. below is required:

   a. **IRB WITH AN MPA:** A signed approval from an IRB with a Multiple Project Assurance (MPA) on file with OPRR. **Institutions with MPAs are listed by state on the NIH OPRR website for your convenience:** http://grants.nih.gov/grants/oprr/humansubjects/assurance/mpaa-h.htm **.** Some MPAs are limited to specific types of research. This is also indicated on the website. This IRB approval package must contain the IRB's assurance number (with expiration date) as well as an **executive summary** of the protocol/task description and informed consent forms evaluated by the IRB, along with any pertinent comments from the IRB concerning interim review requirements or other restrictions. **The executive summary of the protocol/task description should be brief (typically less than 2 pages) and include a clear link between the protocol and specific research tasks in the ATP proposal. Do not submit the full protocol/task that was reviewed by the IRB.**

   **SPECIAL REQUIREMENTS:** Research projects involving protected classes of human subjects as defined in 45 CFR Part 46, Subparts B, C, and D (including pregnant women, human in vitro fertilization, fetuses, prisoners, and children) MUST be reviewed and approved by an IRB that possesses a current assurance which has been approved by OPRR for federal-wide use, and appropriate for the research in question. **No award involving protected classes as defined under 45 CFR Part 46, Subpart B, will be issued until the proposer has certified that an appropriate IRB has made the determinations required under Subpart B, and all other NIST approvals have been completed. This applies to involvement of protected classes under Subpart B in ANY year of the project, not just the first year.** Therefore, IRB approval for any tasks involving protected classes of human subjects under Subpart B at any time during the proposed ATP award period must accompany the proposal, or be supplied at oral review if the proposal is selected as a semifinalist. NIST applies 45 CFR 46, Subpart B to all types of gestational tissue, regardless of the source. Thus any project involving human gestational tissue (including yolk sacs,

non-full-term placentae, tissue or cell lines derived from a non-viable fetus or fetal tissues/cells acquired through a third party) regardless of the source must meet the requirements in 45 CFR 46, Subpart B.

b. **IRB WITHIN PROPOSING INSTITUTION(S) AND WITHOUT AN MPA: (This option does not apply to research governed by 45 CFR, Subpart B, C, and D, see item 2.a. above.)** A signed approval from an IRB associated with the proposing organization(s), but that does not have an assurance on file with the OPRR of the Department of Health and Human Services. This IRB approval package must contain the assurances for the IRB as required in 15 CFR 27.103, as well as a summary of the protocol/task description, all informed consent forms evaluated by the IRB, and any pertinent comments from the IRB concerning interim review requirements or other restrictions. This type of IRB review cannot be used if the protocol/task includes any of the protected classes of human subjects, see item 2a above. In addition, NIST does not consider this to include arrangements with commercial IRBs or IRBs under contract with the proposal participants(s). **If IRB approval is necessary for your proposal, please ensure that the IRB either possesses an MPA from OPRR (item 2a above), or that the IRB was created by and within your organization according to the requirements in 15 CFR 27.103 (b).**

3. **DEFERRED HUMAN SUBJECTS RESEARCH OR EXEMPTIONS. (This option does not apply to research governed by 45 CFR, Subpart B, see item 2a above.)** If there are no research tasks involving human subjects or tissue in the first year, but some are anticipated beyond the first year of the project, the proposer should provide a detailed request for a deferred IRB approval or exemption as appropriate under 15 CFR 27.118. This request should include a) a schedule of when the research tasks are planned that require either an exemption determination or IRB review before funds can be expended on those tasks; and b) a schedule of when the exemption request will be submitted or the request for an appropriate IRB review will be submitted and when an IRB approval is expected. The documentation outlined in either item 1 or 2 above must be submitted for review and written approval by the NIST Grants Officer prior to releasing funds for the research tasks involving human subjects in the out years of the project. **NOTE: Deferrals are not permitted for research involving protected classes under Subpart B, see item 2. above.**

## N. NIST Interactions with Potential ATP Proposers.

Before calling the ATP with questions, please read this Kit in its entirety because it answers most commonly asked questions. To ensure that all ATP proposers are treated equally and receive the same information, NIST staff must limit the kind of information and advice they can provide.

NIST staff will not critique individual project ideas during the time they are being developed by a proposer. However, we will at any time answer questions you may have about such things as our selection criteria, selection process, eligibility requirements, cost sharing requirements, and the characteristics of a good ATP project. Frequently, people call NIST staff saying, "I am thinking of writing an ATP proposal about X. Are you interested in that subject?" The answer is always "yes" **if** the proposal fits the ATP mold (i.e., is not basic research or product development, but is high-risk, commercially driven, broad-impact R&D).

ATP award recipients generally receive their awards without any contact with NIST, other than to obtain information made available to all proposers through the Kit and the Proposers' Conference. In some government agencies it has been traditional for potential proposers to visit with program managers prior to writing a project proposal in order to "run it by them and make sure we are on the right track." At NIST, you determine "whether you are on the right track."

## O. Interactions with the State Science and Technology Programs.

Potential and current ATP recipients may wish to contact programs in their state that are designed to encourage the growth of technology companies. All 50 states have some type of science and technology program that encourages technology-based economic growth. These programs offer a variety of services, including in some states matching funds and proposal preparation assistance for ATP awards. They also serve as a gateway to other important services for technology companies. For more information on how to reach these programs, visit the State Science and Technology Institute's web site at http://www.ssti.org or call them at 614-421-SSTI (7784).

## P. Manufacturing Extension Partnership (MEP).

High technology companies have needs for resources and teaming relationships as they plan and execute high risk research and pursue eventual commercialization. One good source of information and potential resources is the NIST Manufacturing Extension Partnership (MEP).

The Manufacturing Extension Partnership (MEP) is a nationwide network of more than 400 not-for-profit extension centers and field centers whose sole purpose is to provide small and medium-sized manufacturers with the help they need to succeed. The Centers, located in all 50 states and Puerto Rico, are linked together through the Department of Commerce's National Institute of Standards and Technology. This network makes it possible for even the smallest firms to have access to more than 2,000 knowledgeable manufacturing and business specialists with experience on manufacturing floors and in plant operations.

Each MEP Center has the ability to assess where small manufacturers stand today, to provide technical and business solutions, to help them create successful partnerships, and to help them keep learning through seminars and training programs.

It is the special combination of each Center's local expertise and their access to national resources that really makes a difference in the work MEP can do for each small manufacturer. Since MEP was established, through 1998, the program has assisted more than 84,000 small and medium-sized manufacturing firms. Here are some examples where MEP helped small and medium-sized manufacturing firms: process improvement; quality management systems; business management systems; human resource development; market development; materials engineering; plant layout; product development; energy audits; environmental studies; financial planning; CAD/CAM/CAE; and electronic commerce/EDI.

MEP Centers work with small and medium-sized manufacturers, typically those firms with fewer than 500 employees. MEP serves all industries and all companies willing to invest time, money, and people to improve their business. To contact a MEP Center, call 1-800-MEP 4 MFG (1-800-637-4634) and your call will be

automatically routed to the MEP center that serves your region. You will also find additional information about MEP at http://www.mep.nist.gov.

## Q. ATP Alliance Network Website.

The **ATP ALLIANCE NETWORK** website is designed to provide potential proposers (and especially joint venture proposers) with useful tools for creating and managing their R&D partnerships. The website offers interactive forums such as the **Collaboration Bulletin Board**, through which prospective proposers can anonomously post their interest in finding a partner, and the **R&D Alliances Forum**, where individuals can exchange their ideas and questions about high-risk R&D alliances. The website also contains:

1. General information about R&D alliances
2. An administrative roadmap for ATP joint ventures
3. An index to useful information on the ATP website for preparing high-quality ATP joint venture proposals
4. Non-proprietary statistics about the effects of collaboration within ATP projects
5. Reasons why an ATP award can provide a good administrative framework for doing collaborative R&D
6. Some R&D alliance "best practices" observed in ATP projects
7. List of various, non-ATP resources for R&D alliances

Although the **ATP ALLIANCE NETWORK** is especially geared to those who are new to collaborative research, experienced alliance managers should find useful information on it, too. The website is located at http://www.atp.nist.gov/alliance and can be easily accessed from the ATP homepage. Check out its latest postings!

## R. Debriefings to Unsuccessful Proposers.

Generally, ATP offers those who submit unsuccessful full proposals a telephone debriefing. We recommend that you take advantage of the debriefing to hear the SEB's views regarding the strengths and weaknesses of your proposal. That feedback can help you decide whether or not to resubmit a proposal in future ATP competitions, and if so, how to better address those factors considered to be weak in the first proposal. While telephone debriefings are the preferred feedback mechanism for full proposals, ATP reserves the right to use a written checklist feedback mechanism in any competition where the number of proposals received is so large that oral debriefings are not feasible. Unsuccessful proposals from one competition will not be reconsidered for the next competition unless they are resubmitted by the proposer.

# CHAPTER 2: GUIDELINES FOR PREPARING ATP PROPOSALS

(***NOTE: Proposals that deviate substantially from these guidelines or that omit substantial parts or sections may be found unresponsive and may be eliminated from further review and funding consideration. See Exhibit 3 in this Kit for a checklist for submission of an ATP proposal.)***

## A. Proposal Format.

1. **Number of Copies.** Provide an original signed proposal and 15 copies (16 total), each separately bound. Also include one separate copy of only page 1 of the Form NIST-1262 for single company proposers (**see Exhibit 4)** or Form NIST-1263 for joint ventures (**see Exhibit 7**). Please include with your paper copies an electronic version on diskette. Please indicate all file names and formats used (e.g., Microsoft Word, Microsoft Excel, PDF, Corel WordPerfect, HTML, ascii text, etc.). If you do not have an electronic version available, attach a note explaining why.

2. **Page Limit. 40** pages maximum for single companies, **60** pages for joint ventures, including all text, tables, illustrations, references, resumes, and supporting documents. However, this page limitation **EXCLUDES** the Form NIST-1262 or Form NIST-1263 and associated Part 4: Budget Narrative, Form CD-511, Standard Form-LLL, SF 424B, Joint Venture Agreement (if being included), letters of commitment, copies of IACUC approvals along with the approved animal study proposal if proposal includes research involving vertebrate animals, IRB approvals if human subjects or human tissue are involved, or documentation that supports an exemption within 15 CFR Part 27. Quality, not quantity, is what counts! Many successful proposals have contained considerably fewer than the maximum number of pages. You can save pages by following the suggestions below:

   a. List data only for the key people and briefly highlight their education and experience. Do not include lengthy resumes for all people involved in the project.

   b. Lists of publications need not be included. Cite only those references that are particularly relevant to the ATP project. Do not include copies of published papers as appendices.

   c. Do not include supplemental material not specifically requested in this Kit, either bound with the proposal or separate.

   d. Do not include company sales catalogs, video, or audio tapes.

   The budget forms and the budget narrative are **EXCLUDED** from the page count to allow for more detailed budget information as described in section C.2., Part 2: Budget Narrative, of this chapter. **More detailed budget narratives will speed award processing should your proposal be selected for funding.**

3. **Bindings.** Bind each copy of the proposal securely. Bindings which permit the proposal to lie flat while being read are preferred. Loose-leaf ring binders are not acceptable.

4. **Margins.** Use **one inch** top, bottom, left, and right margins.

5. **Typed Document.** All ATP proposals must be typed. Handwritten proposals will be rejected.

6. **Proposal Language.** Proposals must be written in English.

7. **Double-Sided Copy.** Print on both sides of the paper. (A page printed front to back counts as two pages towards the maximum length.)

8. **Page Numbering**. Number pages sequentially within each of the four parts of the proposal (e.g., 1-1, 2-1, 3-1, 4-1).

9. **Paper Size.** Use 21.6 x 27.9 cm (8½ x 11 inch) paper.

10. **Font.** Must use an easy-to-read font (e.g., Times New Roman, **12 point**).

11. **Line Spacing.** Use normal default line spacing, i.e., a minimum of single space.

12. **Usage of Metric/System International (SI) Units.** Use metric/SI units; however, English units may be put in parentheses.

13. **Table of Abbreviations.** Include a table which defines abbreviations potentially unfamiliar to the reader. You do not need to define abbreviations that are common knowledge or would likely be known to ATP, e.g., U.S. for United States, ATP for Advanced Technology Program, DoD for Department of Defense, or cm for centimeter, etc.

14. **Table of Contents.** A table of contents is not required.

15. **Facsimile (FAX) or Electronic* Submissions Are NOT Accepted.** Proposals, proposal amendments, errata sheets, etc., submitted by facsimile (fax) or electronic mail will not be accepted. *However, as noted in item 1. above a floppy disk with an electronic version should be submitted with the proposal.

## B. Abbreviated Proposals (Pre-Proposals).

If a pre-proposal is mandatory in any competition, this will be specified in the competition announcement along with the due date. Optional pre-proposals, however, can be submitted at **any time** throughout the year. The basic approach is similar to that for full proposals except a pre-proposal has considerably less detail than a full proposal and does not require all of the forms. Instructions for submitting pre-proposals are also included in this Kit **(see Appendix E)**. Pre-proposals are reviewed by ATP to determine whether the proposed projects appear sufficiently promising to warrant further development into full proposals. The same selection criteria apply to pre-proposals as with full proposals.

## C. Full Proposals.

This section lists the items that **MUST** be included in a full proposal. Several additional items are also identified in this section that are not required in a full proposal, however, they must be submitted prior to award if your proposal is selected for funding.

1. **Part 1 - Forms and Other Documents.** All of the required forms with instructions and other documents you will need to submit with your proposal or prior to an award are included in this Kit at the end as tear-out pages **(see Exhibits)**. The required forms should be incorporated in Part 1 of your proposal. Each of the documents are referenced below as Exhibits. As noted, some forms are required by single company proposers only, some by joint ventures only, and some by both:

   a. **Single Company Only**.

      1) **Form NIST-1262 Pages 1 & 2** - Single Company Advanced Technology Program Proposal Cover Sheet **(see Exhibit 4)** must submitted with each single company proposal. **Page 1 of this form serves as the cover for the proposal, therefore, no other cover should be included**. Use the list of ATP Technology Area Codes included in this Kit **(see Appendix F)** to complete item 2 on this form. The authorized company representative who signs the form must have delegated fiduciary authority. By signing this form, the company representative certifies: the company's commitment to pay all indirect costs and, if included as additional cost share, any direct costs; verifies the certification statements on the form; and verifies the accuracy of the proposal. The signature also signifies the company representative has coordinated with top management within his/her own company about their commitment to the proposed project. Additionally, by signing the form, the company representative acknowledges the proposal is being submitted with the agreement that NIST may use non-Government reviewers, if necessary. (Such reviewers would be screened to eliminate conflicts of interest and would sign non-disclosure statements.)

      2) **Form NIST-1262 Page 3** - Estimated Multi-Year Budget - Single Company **(see Exhibit 5)** must be submitted with each single company proposal. Items completed must reflect estimated costs for each year of the proposed project, as well as totals for the entire project. Do not leave section 3, Tasks blank.

      3) **Form NIST-1262 Page 4** - Subcontracts **(see Exhibit 6)** must be submitted with each single company proposal involving subcontracts to identify each proposed subcontractor and associated scope of work. Every item must be completed to ensure proper review. If you plan to use competitive bidding to choose a subcontractor(s), note this on the form and identify the scope of work to be done by the subcontractor(s).

   b. **Joint Venture Only**.

      1) **Form NIST-1263 Pages 1 & 2** - Joint Venture Advanced Technology Program Proposal Cover Sheet **(see Exhibit 7),** must be submitted with each joint venture proposal. **Page 1 of this form serves as the cover for the proposal, therefore, no other cover should be included.** Use the list of ATP Technology Area Codes included in this Kit **(see Appendix F)** to complete item 2 on this form. The authorized company representative who signs the form

must have delegated fiduciary authority. By signing this form, the company representative certifies to the commitment of cost sharing, verifies the certification statements on the form, and verifies the accuracy of the proposal. The signature also signifies the company representative has coordinated with top management within his/her own company and all companies/organizations described as joint venture partners about their commitment and cost sharing to the proposed project. Additionally, by signing the form, the authorized company representative acknowledges the proposal is being submitted with the agreement that NIST may use non-Government reviewers, if necessary. (Such reviewers would be screened to eliminate conflicts of interest and would sign non-disclosure statements.)

2) **Form NIST-1263 Page 3** - Estimated Multi-Year Budget - Joint Venture **(see Exhibit 8)**, must be submitted with each joint venture proposal. Items completed must reflect estimated costs for each year of the proposed project as well as totals for the entire project. The front and back of this form are identical. If your joint venture is for more than two years in duration and the number of participants is greater than five, you will need to make additional copies of this form, as necessary, depending on the duration of the project and number of participants. Specify the name of each participant at the top of each column. Do not leave section 3, Tasks blank for any joint venture member.

3) **Form NIST-1263 Page 4** - Other Joint Venture Participants **(see Exhibit 9)**, must be submitted with each joint venture proposal to identify the joint venture participants (excluding the organization submitting the proposal since that information is provided on page 1 of the Form NIST-1263). The front and back of this form are identical and can be used to identify up to 10 participating organizations. This form may be duplicated, as necessary, if there are additional participating organizations. Categories of joint venture participants is not adequate identification. For example, do not list "A Manufacturing Company," or "A University," or "A Hospital." Provide the legal name and contact information of each joint venture participant. Include only those organizations bound by the Joint Venture Agreement. Do not list subcontractors on this form as information on proposed subcontractors should be provided on NIST-1263 Page 5.

4) **NIST-1263 Page 5** - Subcontracts **(see Exhibit 10)**, must be submitted with each joint venture proposal to identify each proposed subcontractor and associated scope of work. Every item must be completed to ensure proper review. If you plan to use competitive bidding to choose a subcontractor(s), note that on the form and identify the scope of work to be done by the subcontractor(s).

5) **Joint Venture Agreement**. While joint ventures are not required to include a copy of the Joint Venture Agreement in the proposal, a **draft** "unexecuted" Joint Venture Agreement among all joint venture participants will be required at the time of an oral review, so you should be thinking about negotiating this agreement as you write the proposal. The draft Joint Venture Agreement must include at a minimum:

   a) Authorization for one of the joint venture participants to bind all of the other participants to the terms and conditions of the NIST award and to administer the NIST award on behalf of all of the participants;

b) Treatment of intellectual property, i.e., who will own what, including provisions granting the required licenses to the government; and

c) Agreement that the ATP award terms and conditions take priority over Joint Venture Agreement terms and conditions.

**NOTE:** Although the draft Joint Venture Agreement need not be signed at the time of the oral review, if the proposal is selected for funding, the Joint Venture Agreement should be finalized and executed by all joint venture participants prior to the award being made. For your convenience, we have developed a sample Joint Venture Agreement **(see Appendix G-1)** and Intellectual Property Plan **(see Appendix G-2)** for your use**.** The sample Joint Venture Agreement includes important information; however, it is not meant to be a sole Joint Venture Agreement model. If a joint venture wants to develop its own Joint Venture Agreement, it may do so, provided the minimum provisions mentioned above are included.

Based on feedback from companies involved in the ATP, we have found that organizing joint ventures and keeping them operating smoothly is much more difficult than participants anticipate. Often the technical participants are able to come to agreement quickly, but when attempts are made to get the concurrence of the companies' legal departments prior to the signing of the Joint Venture Agreement, lengthy delays can occur, and sometimes, joint ventures can unravel in spite of continuing enthusiasm on the part of the technical and business managers involved. Examples of issues that most often cause trouble include:

a) Who holds title to intellectual property?
b) How are revenue streams to be divided?
c) What indemnification provisions will be acceptable to all parties?
d) Who will be the spokesperson for the joint venture?
e) Who authorizes licensing agreements?
f) Who handles the billing to NIST and brings issues to NIST's attention?
g) What will happen during the course of the project if one party drops out and/or another party wishes to join?
h) Who will coordinate writing the quarterly reports to NIST?
i) Who will track progress against technical milestones to bring issues to the attention of the joint venture and NIST?

While each joint venture can write its own Joint Venture Agreement, there are certain provisions noted in the Kit that all joint venture partners **MUST** agree to before the ATP can make an award. For example, ATP's legislation states that title to intellectual property developed with ATP funds must be held by a company incorporated in the United States.

Before investing a large effort in planning technical work for a joint venture, companies are urged to obtain a legal review of the sample Joint Venture Agreement in this Kit **(see Appendix G-1 and Appendix G-2)** by all participants. If it appears likely that the kinds of provisions contained in the sample Joint Venture Agreement will be contentious, we urge you

to consider very carefully whether the joint venture is feasible. If there are questions, your legal staff may contact the Deputy Chief Counsel for NIST, Michael Rubin, at 301-975-2803.

We strongly recommend that the person who signs the ATP proposal be someone at a high enough level of the company to be able to deal effectively with the kinds of legal and policy concerns that are necessary to enact a successful Joint Venture Agreement. It is often helpful if this same individual signs the Joint Venture Agreement on behalf of the company if the project gets funded. This individual must coordinate with top management within his/her own company and participating companies/organizations about their commitment and proposed cost sharing to the proposed project.

6) **Evidence of Notification to the Department of Justice (DoJ) and the Federal Trade Commission (FTC) of Formation of Joint Venture**. In accordance with 15 CFR Part 295.24, prior to an award, the proposer must provide the ATP with copies of the notification sent to the DoJ and the FTC that a joint venture has been formed for the purpose of the proposed research. The notification should list the joint venture participants and briefly describe the research for which the joint venture was formed.

c. **Single Company and Joint Venture**.

1) **Standard Form 424B**, Assurances - Non-Construction Programs **(see Exhibit 11)**, must be submitted with each single company and joint venture proposal. The authorized company representative who signs the form must have delegated fiduciary authority. By signing this form, the company representative certifies compliance with the standard assurances. **NOTE:** If a joint venture proposal is selected as a semi-finalist, the SF 424B must be completed by each of the other joint venture participants and submitted to ATP prior to the oral review.

2) **Form CD-511**, Certifications Regarding Debarment, Suspension and Other Responsibility Matters; Drug-Free Workplace Requirements and Lobbying (**see Exhibit 12**), must be submitted with each single company and joint venture proposal. All financial assistance proposers must certify that they: are not suspended or debarred from participating in Federal programs, will provide a drug-free workplace, and have not or will not use Federal appropriated funds to engage in prohibited lobbying activities. **NOTE:** If a joint venture proposal is selected as a semi-finalist, the Form CD-511 must be completed by each of the other joint venture participants and submitted to ATP prior to the oral review.

3) **Standard Form-LLL**, Disclosure of Lobbying Activities (**see Exhibit 13**) must be submitted with each single company and joint venture proposal if the proposer(s) engage in lobbying. The Form CD-511 defines the circumstances under which this additional reporting requirement applies. Read the Form CD-511 to determine if you are required to submit the Standard Form-LLL, and if it is required, include it with your proposal. **NOTE:** If a joint venture proposal is selected as a semi-finalist, the Form SF-LLL must be completed by the other joint venture participants, if applicable, and submitted to ATP prior to the oral review.

4) **Form CD-346**, Applicant For Funding Assistance **(see Exhibit 14)**. While not required as a part of the proposal, this form will need to be submitted by appropriate personnel, including joint venture participants, if the proposal is selected as a semi-finalist. This form must be submitted prior to the oral review by the following individuals of the proposing organization(s):

   a) Technical and business project managers.
   b) Chief financial manager.
   c) Key officer who will have fiduciary responsibility for the award or who has authority to speak for and/or commit the recipient in the management of the award and/or expend funds.
   d) Grant/Contract Manager

   This information is used to conduct a name check on the key individuals to determine whether there is any criminal or adverse finding which would have a negative effect on their participation in the award. Officials of state, local governments, accredited colleges, and universities acting on behalf of their respective entities in applying for assistance are exempt from the name check requirement. Additionally, elected officials of state and local governments who are serving in capacities other than their elected capacities when applying for assistance are also exempt.

5) **Vertebrate Animal Research Documentation**. The Institutional Animal Care and Use Committee (IACUC) associated with the proposing organization(s) must approve an Animal Study Proposal (ASP) detailing all research involving vertebrate animals for NIST to review before the NIST Grants Officer will release the use of funds for animal research. If the IACUC has reviewed and approved the ASP, a copy should accompany the ATP proposal. If IACUC approval is not available at the time of proposal submission, please note that a copy of the approved ASP for animal research tasks beginning in the first year of the project, must be submitted at the time of oral review if the proposal is selected as a semifinalist. In addition to the ASP, the proposer must also supply copies of all appropriate assurances or institutional certifications (with expiration dates) applicable to the types of animals involved. The animal study request should include at least one relevant assurance or institutional certification from the following list for each facility involved in the housing and handling of animals in the project:

   a) the U.S. Department of Agriculture (USDA) Animal Welfare Act registration certificate.

   b) the Animal Welfare Assurance issued by the Office of Protection from Research Risk (OPRR), National Institutes of Health (NIH). (NOTE: If you have recently applied for this but do not currently have NIH funding, NIH will not issue an assurance until after being notified that an award has been made by another federal agency. This may result in an ATP award that is restricted from specific research activities until the assurance is issued. If the assurance cannot be issued, suspension or termination of the award could occur.)
   c) the Association for Assessment and Accreditation of Laboratory Animals Care International (AAALAC) accreditation.

6) **Human Subjects Documentation Requirements:** A proposal may contain more than one research activity involving human subjects. Each activity involving human subjects may require a different type of documentation to be submitted with the proposal. The following appropriate documentation should be submitted with each proposal if the proposed research involves human subjects or human tissue, pursuant to Department of Commerce regulations published at 15 CFR Part 27. [NOTE: The policies in these regulations cover research involving questionnaires, surveys, or software usability evaluations (e.g., if the human participant in the software usability evaluation is at risk for exposure of confidential information that could cause the person harm) as well as the more traditional laboratory and field research involving biological specimens or medical research.] **See Section M of this kit for complete details on determining whether or not you need to submit the following documentation with your proposal.** In addition, the checklist provided as Exhibit 2 will help you determine which of the following types of documentation are required to be submitted with your proposal:

   a) **Exemption Determination Request:** If it is anticipated that the use of human subjects or human tissue/cells may qualify for an exemption under 15 CFR 27.101(b), documentation to support that opinion is required. The list of questions in Appendices C and/or D of this Kit **must** be answered to provide the documentation for each exemption determination being requested. Processing the exemption will be delayed without this documentation. If your institution uses an IRB review for exemptions, include the IRB approval documentation of the specific exemption(s) in addition to completing Appendices C and/or D. Please note that the exemption documentation is required at the time of oral review if the proposal is selected as a semi-finalist and the information was not provided in the original proposal. Exemption documentation is needed for all data, tissues or cells from non-living donors, or for existing data or specimens of human origin obtained or purchased from third parties.

   b) **Institutional Review Board (IRB) Documentation for Non-Exempt Research:**

      (1) **IRB Assurance Documentation:** One of the following forms of an IRB assurance is required. An assurance documents that the IRB doing the review is qualified and will comply with the requirements set forth in 15 CFR 27 (see 15 CFR 27.103). Please note the specific restrictions in order to determine which type of assurance is applicable to your proposal.

         (a) An applicable Multiple Project Assurance (MPA) on file with the Office of Protection from Research Risks (OPRR), within the National Institutes of Health (NIH). The MPA number, expiration date of the MPA and any restrictions of the MPA must be provided. This type of assurance is required for:

            i. proposals involving any of the protected classes of human subjects as defined in 45 CFR Part 46, Subparts B, C, and D.

ii. proposals for which the IRB used for the review was not created by and located within any of the proposing organizations involved in the research tasks under review by the IRB. For example, if you choose to use an IRB from a local hospital or university because your company does not have an internal IRB, the IRB at the hospital or university MUST possess an applicable MPA.

iii. projects involving all types of gestational tissue, regardless of the source. Thus any project involving human gestational tissue (including yolk sacs, non-full-term placentae, tissue or cell lines derived from a non-viable fetus or **fetal tissues/cells acquired through a third party**, regardless of the source must meet the requirements in 45 CFR 46, Subpart B.

(b) If your IRB does not have an MPA and was created by and within one of the proposing organizations involved in the research tasks under review by the IRB then your proposal MUST contain the assurances for the IRB as required in 15 CFR 27.103. This option only applies to research NOT involving any of the protected classes of human subjects as defined in 45 CFR Part 46, Subparts B, C, and D. This option does NOT apply to arrangements with commercial IRBs or outside IRBs without MPAs.

(2) **Protocol/Task Summaries and Consent Forms Reviewed by the IRB:** Executive summary(ies) of the protocol/task description(s) and informed consent form(s) evaluated by the IRB are required. The executive summar(ies) of the protocol/task description should be brief (typically less than 2 pages) and include a clear link between the protocol/task and the specific research activities in the ATP proposal. Do not submit the full protocol/task that was reviewed by the IRB.

(3) **IRB Approval Documentation:** A signed and dated approval from an IRB with an appropriate assurance is required. The approval should contain any pertinent comments from the IRB concerning interim review requirements, restrictions, or modifications required for full approval.

c) **Deferred Human Subjects Research or Exemption** (This option does not apply to research involving the protected classes of human subjects governed by 45 CFR 46 Part B, see IRB Documentation for Non-Exempt Research.) If there are no research tasks involving human subjects or tissue in the first year, but some are anticipated beyond the first year of the project, the proposer should provide a detailed request for a deferred IRB approval or deferred exemption as appropriate under 15 CFR 27.118. This request should include:

(1) A general date when the research tasks involving human subjects or tissue are planned. For example: second quarter of the third project year.

(2) A schedule of when the exemption request will be submitted or the request for an IRB review will be submitted to a qualified IRB and when an IRB approval is expected. NOTE: The NIST IRB is not authorized to perform IRB reviews for ATP proposers or funded projects.

2. **Part 2 - Budget Narrative**. The budget narrative is excluded from the page limitation and is used by both technical and business reviewers and by a grants official to determine reasonableness and allowability of costs. The overall estimated multi-year budget numbers are to be provided in Part 1 of your proposal on page 3 of Form NIST-1262 or Form NIST-1263.

Part 2 or the budget narrative of your proposal is basically a breakdown of the figures reported on the NIST-1262 or NIST-1263 . Breakdowns should be as accurate and specific as possible. Although there is no required format, it should be logical and easy to understand. Tables with rows and columns appropriate for your own situation are usually the best way to go, but you may need to include a small paragraph to explain the information. Include all years of the project and include the budget breakdown for each joint venture participant if a joint venture proposal. Each joint venture participant should use the same type of format. **Make sure any figures presented in this part are consistent with the figures on Form NIST-1262 or Form NIST-1263 and make sure the arithmetic is correct.**

**NOTE:** Proposed costs must be reasonable, allocable, and allowable in accordance with the applicable Federal cost principles (see 15 CFR 14.27). All salaries/wages (technical and administrative), fringe benefits, travel, materials and supplies, equipment, subcontracts, other costs, and indirect costs proposed are to be consistent with costs incurred for like or similar items on all other Federal and non-Federal projects or cost centers. The budget narrative must include, at a minimum, details on the following object class categories, including a description of any **in-kind contributions which must be clearly delineated**:

a. **Technical Personnel Salaries/Wages**. Identify the name and position title of each full and part time scientific, engineering, and other technical personnel and associated annual salary, excluding fringe benefits. Show work year(s) for each employee applicable to the proposed project. For example, a full time individual working full time all year equates to 1.0 work year. An individual working full time for six months equates to 0.5 work year. We recognize that a company may not be able to identify all of the personnel to be assigned to the project several years down the road. Where this cannot be done, use generic position titles such as "senior chemical engineer" and for name, "to be determined." **Consultants should NOT be included in this category, but more appropriately under the "subcontracts" category and described on Form NIST-1262 or NIST-1263, pages 4 and 5 respectively**.

b. **Administrative Personnel Salaries/Wages**. Identify the name and position title of each full and part time managerial and administrative personnel and associated annual salary, excluding fringe benefits. Show work year(s) for each employee, applicable to the proposed project. For example, a full time individual working full time all year equates to 1.0 work year. An individual working full time for six months equates to 0.5 work year. We recognize that a company may not be able to identify all of the personnel to be assigned to the project several years down the road. Where this cannot be done, use generic position titles such as "administrative officer" and for name, "to be

determined." **Consultants should NOT be included in this category, but more appropriately under the "subcontracts" category and described on Form NIST-1262 or NIST-1263, pages 4 and 5 respectively**.

c. **Fringe Benefits.** Identify percentage rate and if greater than 35 percent, provide a breakdown of what makes up the fringe benefits. If fringe benefits are normally included in your organization's indirect cost rate, they should be budgeted as such, and provide a statement to that effect.

d. **Travel**. Give us your best estimate as to the travel required for the project. Estimate the number of trips; cost per trip, including mode, i.e., air, taxi, private automobile, train, etc., lodging, and subsistence; number of days; number of persons; destination; approximate travel time frames; **and most importantly the purpose of the travel**. Note that ATP recipients are expected to adhere to government policies regarding travel, such as, coach rather than first class accommodations, etc. Travel costs should represent a coherent part of the project's "communications strategy" for a smooth coordination among participants. While foreign travel is not precluded, it is discouraged and will require a strong justification on how it is directly related to the R&D activities of the ATP project.

e. **Equipment**. Identify each item of new equipment and cost. Budget estimates for equipment items exceeding $100,000 each must be described and justified separately. Also identify any in-kind owned equipment and its current depreciated value using the participant's preestablished depreciation accounting methods. The value of equipment will be further prorated according to the share of total use dedicated to carrying out the proposed ATP work. **Remember, ATP funds may not be used for construction of new buildings or extensive renovations of existing laboratory buildings. ATP funds may, however, be used for construction of experimental research and development facilities to be located within a new or existing building provided that the equipment or facilities are essential for carrying out the proposed scientific and technical program. If such costs are proposed, include them under the equipment object class category and provide an explanation of costs.**

f. **Materials/Supplies**. Provide a list of the types of expendable materials and supplies and provide cost breakdown.

g. **Subcontracts**. Information on each subcontractor is not required in Part 2 of the proposal, however, it must be provided on the NIST-1262 Page 4 or NIST-1263 Page 5. **Remember, a project in which a substantial share of the ATP funds is going to subcontractors without significant justification will tend to score low because of concerns over the proposer's level of commitment to the project.** Single company and joint venture participants may not subcontract to another part of the same company or to another company with identical or nearly identical ownership. Work proposed by another part of the same company or by another company with identical ownership should be shown as funded through interorganizational transfers that do not contain profit. Interorganizational transfers should be broken down by budget categories in a similar manner to all other non-subcontract tasks. Additionally, because ATP's goal is to create economic growth in the U.S., ATP recipients are expected to use U.S. subcontractors located in the U.S. with benefits accruing to the U.S. Proposals which include foreign subcontractors and that do not fully

justify such use will normally score low in the ATP selection criterion that ensures that economic benefits must accrue to the U.S.

h. **Other**. Identify and provide a detailed description of any other direct costs that do not fit into the object cost categories above. The cost of the project audit should also be included in this category unless it is part of the indirect costs. For an award that is less than 24 months, an audit is required only at the end of the project; for 2, 3, or 4 year awards, an audit is required after the first year and at the end of the project; for 5 year awards, an audit is required after the first year, third year, and at the end of the project.

i. **Indirect Costs**. Estimate the total indirect costs and specify the current indirect cost rate(s) used. If an indirect cost rate was negotiated with a cognizant Federal agency, include a copy of the approved negotiated agreement. If an indirect cost rate has not been established by a cognizant Federal agency, an indirect cost rate proposal must be submitted within 90 days of the date of award. Note: If the company's indirect cost rate is over 100 percent of direct costs, NIST reserves the right to limit such costs.

We recognize that unexpected events occur frequently in R&D projects, and that budgets may need to be changed as a project proceeds. Don't fear that by providing a multi-year budget beyond the first year, you will be locked into those details. ATP allows a certain amount of flexibility in moving funds from one line item to another as circumstances change, as long as there is an adequate justification for doing so and as long as you obtain authorization from the NIST Grants Officer. By stating an amount for a given task, you will not be required to spend precisely that amount on that task. For example, if, in the second or third year of your project, you find that you need to spend more on one task and less on another than anticipated, that can be accommodated. A task that proves unnecessary can be deleted and a new task can be defined if there is adequate justification that such changes will enhance the chances of accomplishing the objectives of the project. If you need to spend less on equipment and more on labor, that can be accommodated, too. Changes of this kind will be considered by NIST as long as they can be justified. They must make good technical and business sense and be **approved in advance** in writing by the NIST Grants Officer. Recognizing that change is inevitable, we ask our recipients for a revised budget at the beginning of each year of a multi-year project. **However, the total amount for the project cannot be increased**. You will **NOT** be reimbursed for project overruns. Try to avoid overestimating or underestimating your project costs. The dollar amount of your request must be commensurate with the tasks you define.

3. **Part 3 - Executive Summary**. Include a one to two page Executive Summary briefly highlighting the major sections of Part 4, Project Narrative. The summary should address:

- Scientific and Technological Merit
  - Innovation in Technology
  - High Technical Risk and Feasibility
  - Quality of R&D Plan

- Potential for Broad-Based Economic Benefits
  - Economic Benefits

- < Need for ATP Funding
- < Pathway to Economic Benefit

4. **Part 4 - Project Narrative**. Proposals must include a project narrative section which addresses the ATP selection criteria detailed below. The criteria used to evaluate your proposal are divided equally between: a. Scientific and Technological Merit, and b. Potential for Broad-Based Economic Benefits.

   a. **Scientific and Technological Merit (50%)**. Describe the technical aspects of your project, explaining what you will do, how you will do it, when, where, and why. The scientific and technological merit is determined by assessing the innovations in the technology, technical risk and feasibility, and the quality of your research and development (R&D) plan. The proposed technology must be highly innovative. The research must be challenging, with high technical risk. It must be aimed at overcoming an important problem(s) or exploiting a promising opportunity. The research must have strong potential for advancing the state of the art and contributing significantly to the U.S. scientific and technical knowledge base. The technical plan must be clear and concise; must clearly identify the core innovation, the technical approach, major technical hurdles, the attendant risks; and must establish feasibility of the approach through adequately detailed plans linked to major technical barriers. The ATP will assess the proposing team's relevant experience for pursuing the technical plan. The team carrying out the work must demonstrate sufficiently high level of scientific/technical expertise to conduct the R&D and must have access to the necessary research facilities.

   **Innovation in Technology.** Describe the technology development goals of the project. Discuss the principal research and development objectives and the rationale for choosing these objectives. Quantify your objectives to the extent possible. Specify the performance levels you hope to achieve. Explain how your proposed technical objectives compare to the state of the art and current industry practice, making clear the baseline from which you are starting.

   It is essential to establish that your proposed project is unique and innovative. To do this requires documenting the state of the art and on-going efforts by others. Point out what distinguishes your proposed work from other efforts. Ignoring the existing body of knowledge and on-going work by others may cause reviewers to assume that you are not knowledgeable about existing work or that your work duplicates existing efforts.

   Your proposed project must display a high degree of innovation. Innovation may relate to the objectives of research, or to the approach to achieving those objectives; that is, innovation may be in **what** you want to do, as well as in **how** you intend to do it. Describe the key innovations in your R&D. Summarize and enumerate innovations in a succinct and concise form. Identify key technical barriers that stand in the way of developing or exploiting the new technology, and show that your approach to overcoming those barriers is particularly innovative relative to alternative approaches being pursued by your foreign and domestic competitors.

   Compare and contrast your technical approach to those approaches taken by other domestic and foreign companies working in the same field. Show how far along your technology development will be at the end of the ATP project relative to where you predict your competition will stand at

that same time. (Note that this section emphasizes the competitive situation from a technical perspective, whereas **Part 4.b.** addresses the competitive situation from a business perspective.)

Describe the technical leverage that the R&D project will have if it is carried out successfully. Technical leverage is understood to mean a small advance in one area of technology will have a large impact on other areas of technology, or on a broad spectrum of technology applications. Will the project contribute to the U.S. technology base even if it is not completely successful either technically or commercially? In what ways? How will you facilitate impacts in other technology areas?

Projects that do not involve new technology development (e.g., creation of voluntary consensus standards, data gathering / handbook preparation, testing of materials, or unbounded research aimed at basic discovery science) will not be funded. Projects that are simply a follow-on or continuation of previously funded ATP projects will not be funded.

**High Technical Risk and Feasibility**. Describe the technical challenge and assess the probability of success of the project concept. Characterize the project with respect to technical risk, and identify the high technical-risk tasks. "High technical risk" is understood to mean *embodying technical challenges which display significant recognized uncertainty of success.* For high technical-risk projects, surmounting the technical challenge should result in a dramatic change in the future direction of technology. Risk may be high in developing single innovations, integrating technologies, or both. Assess the challenge and the probability of success of each of the major components of the scientific and technical plan. (Remember that the mission of ATP is to help companies overcome high-risk technical barriers, where potential benefits are large.)

Proposed ATP projects must be credible with respect to the feasibility of the technical approach. Feasibility is understood to mean that there is a sound scientific foundation or rationale for the proposed approach, based either on early research results or research evidence in the open literature. The ATP will not fund ideas that have no scientific basis or plausibility. The proposer must therefore demonstrate that the proposed R&D is reasonable, legitimate work based on sound theoretical or empirical scientific thinking or findings.

Indicate where the proposed research presses the state of the art and goes beyond routine, well-established science and engineering techniques. Discuss the balance between high technical challenge and risk, and the potential for truly radical innovation. Weigh the risk against the potential payoff. How big is the risk, how big is the potential payoff? How much of a "long shot" is it? The ATP does have an interest in 'high risk, high return' projects. It is up to the proposer to make the case that the risk/return characteristics of the project make it a worthwhile investment.

**Quality of R&D Plan.** Describe the technical plan over the life of the project, how the proposed work will be organized into tasks, and how the tasks are interrelated. The first year's work should be described in more detail than work in subsequent years. Key decision points and alternatives should be discussed within the context of a decision point strategy. ("If this happens, we will do A, but if that happens, we will do B."). Include a project time line chart as illustrated in **Figure 1**. Describe technical tasks; define clear, quantitative milestones; provide line item budgets, identify

major "go, no-go" decision points. Since your proposal (if funded) becomes the basis for a "statement of work," ATP looks for a good R&D plan to help with project tracking/management.

**Figure 1. Project Plan, Milestones, and Budget**

| Major Project Tasks | Project Time | | | | | Total Funds $K | Major Milestone Description |
|---|---|---|---|---|---|---|---|
| | Y1 | Y2 | Y3 | Y4 | Y5 | | |
| Task 1 Description | " | | | | | $K | ": Complete, demonstrate, validate.... |
| Task 2 Description | | | " (1) | " (2) | | $K | " (1): Complete, demonstrate, validate.... " (2): Complete, demonstrate, validate.... |
| Task 3 Description | | | " | | | $K | ": Complete, demonstrate, validate.... |
| Task 4 Description | | | | | " | $K | ": Complete, demonstrate, validate.... |
| Task 5 Description | | | | | " | $K | ": Complete, demonstrate, validate.... |
| Funding Totals | $K | $K | $K | $K | $K | $K | |

Provide a brief statement of projected overall accomplishments for each proposed year of activity. These accomplishments should characterize what success the company would like to achieve by the end of each year in order to maintain a high level of commitment of the company in continuing with the project. The projected annual accomplishments should define how the project would have severable benefits to the taxpayer by funding year. The statement of accomplishment may take the form of a description of the extent to which the state of the art in a technology area will be extended by the end of the year, or a characterization of what level of performance needs to be achieved by the end of the year to keep the project on track toward achieving the overall project goals by the end of the project.

If a project is selected for funding, there will be flexibility in redefining annual accomplishments and milestones based on the research results through the life of the project, as long as the adjustments are consistent with the originally proposed project goals. If there are particularly critical decision

points in your scientific and technical program at which time you plan to reassess your willingness to continue your commitment to the project, indicate those points and the conditions or metrics under which you would want to terminate the project.

Explain the technical rationale for each task and describe, in a quantitative manner, the approaches to be followed to generate, test, and interpret information. This should explain **how** you intend to reach the technical objectives. Some unsuccessful proposals have emphasized meritorious technical goals and provided no roadmap on how to get there. Goals for the end of the project are important but not enough; the means to the end must be described.

Provide sufficient detail to enable a technical review of the merits of the proposed research plan. Without detail, the technical reviewers will not be able to make an assessment. For example, don't simply say, "We will measure the properties of the key materials." What materials? What properties? Over what range of variables? Using what techniques? How will data be used in achieving the goals? It is essential to stress what is innovative about the work you propose, because if it appears to be straightforward, routine data gathering, or just good engineering practice, your project will not be funded.

The most common reason for failure of ATP proposals when considering technical merit is the lack of a clear research and development plan spelling out the details of the innovation(s), and specifying sufficient detail for reviewers to judge the degree of innovation. It is never adequate simply to establish technical barriers and set up a logical research path to address the technical barriers. Successful proposals must identify the innovative approach which will be pursued to overcome barriers, and must provide enough detail to allow assessment of the innovation and the risk inherent in the research that is to be conducted.

Describe how the project will foster a team approach and ensure effective communication among team members. Show how your R&D team will be aware of and take into account views and constraints of suppliers, considerations of manufacturability, requirements of customers, regulatory concerns, safety issues, environmental impacts, etc. Describe how all of the necessary scientific, engineering, and business disciplines will be brought into the R&D planning. Discuss how you will ensure that the cross-disciplinary knowledge and capabilities required for the project's success will be available when needed. If there are special issues related to such things as workforce training requirements associated with the new technology, environmental impact, or regulatory issues, they should be discussed here.

Discuss the particular technical qualifications and experience of technical personnel, and the ability of the technical team to accomplish the R&D work. Describe critical facilities and equipment necessary for conducting the R&D work. More general discussion of technical staff, and facilities and equipment, should be presented under *Experience and Qualifications* in **Part 4.b.**

b. **Potential for Broad-Based Economic Benefits (50%)**. Here you will explain why your proposed technology has strong potential for substantial benefit to the nation; why the benefits are expected to extend significantly beyond the direct returns to the proposing organization(s); what difference ATP funding will make in producing benefits; why ATP support is needed in place of

private financing sources; how you will commercialize the technology, and how its broader diffusion will likely occur; and what experience and qualifications, level of commitment, organizational structure, and management plan you bring to the project.

**Economic Benefits.** Explain what problem or opportunity is being addressed and why it is of economic importance. Assuming you achieve your proposed technology innovation, what will the benefit be? How will the technology be used? Who are the potential users? How large are the affected markets, and how great the changes expected for markets due to this technology?

Will the proposed technology be "pathbreaking" in opening up new and revolutionary possibilities or fields of activity? Will it be "infrastructural" in providing a foundation for entire industries or sectors, or in providing support for the development and implementation of a broad set of technologies? Will the proposed technology be "multi-use" and have multiple and distinct applications? If so, explain how and in what way each of these characteristics may apply.

Will the technology result in new or improved products or processes? As specifically as possible, discuss the value of the advances and explain how the new technology will be better than the existing technology, in terms of performance and quality gains, cost savings, or other health, safety, or environmental benefits. How will the nation be better off for having this technology, as opposed to not having it?

Having explained the benefit of the project for the nation, now explain what difference ATP funding makes. Explain what your R&D project will look like with and without ATP funding. How will ATP funding change the scope, scale, or timing of your research effort? How will ATP funding affect your ability to carry out the project successfully? And then, given your discussion of how your research will change with and without ATP, describe how the capability of your company will change, how the shape of the technology and industry will change, and how the development of the market will change.

To the greatest extent possible, present quantitative evidence along with qualitative arguments in your discussion of potential benefits. Do your best to indicate the size or magnitude of potential benefits, with and without ATP funding.

**Need for ATP Funding.** Explain why your project needs public funds. Why is full private funding not available or not possible? If you are a small company, why are internal funds not devoted to this project, and what efforts have you made to seek external private financing? If you are a large company (that is, a business unit or division in a large company), explain why this project does not match the profile for internal R&D funding priority.

What makes this project special and deserving of public support? How does it differ from other projects in your company's R&D portfolio that are fully financed with private resources? If the project is "too risky" to obtain private funding, explain what about the project makes it too risky. Be specific. If you think that your company cannot capture enough of the benefit or profit from this project to warrant the investment, explain why. Are there technology characteristics or business characteristics that make it difficult for the firm doing the R&D to capture the returns?

Depending on the particular situation of your company or business unit and the nature of your technology, the reasons you present for why you need public ATP support will differ. Tell us your story.

**Pathway to Economic Benefit.** If your R&D effort is successful, how will the technology be brought to market, or otherwise enter into use? Ultimately, how will your technology generate economic value and provide economic benefit to the nation?

***Commercialization***. ATP expects that you, the project proposer, will take a major role in getting the technology into the marketplace rapidly through commercialization activities. You must demonstrate an understanding of the market; prove you know your strengths, weaknesses, and opportunities from a competitive standpoint; and show that you have at least a preliminary business plan and strategy for introducing the technology into the market.

Explain how the technology is evolving in the U.S. and abroad, and assess your timeliness in reaching the market. Who are your competitors and what are they doing? How are competing technologies developing and progressing? Are you in the lead? Behind? Trying to catch up? Planning a leap-frog strategy? Will you get there in time? Will you be able to make a difference?

Identify potential applications of your technology, and highlight your initial target application. Explain your strategy for the target application in detail. Discuss the role of strategic alliances, marketing arrangements, plans for technology licensing, and your approach to intellectual property protection. In short, present your commercialization strategy and demonstrate that you have a coherent business plan.

Discuss business or market risks that you expect to face, and describe your approach to managing those risks. Describe how varying degrees of technical success on the R&D plan and how changing business conditions might affect your ability to commercialize the technology. The ATP recognizes that inability to achieve full technical success, as well as unanticipated developments in fast-moving markets, can change opportunities and alter plans. Discuss the possibility of adjustments to commercialization plan in response to different or changing conditions.

It is important to emphasize that while ATP funding decisions are based in part on a consideration of the opportunities for commercial success, ATP funds are **not** to be used for commercialization activities. The ATP only funds R&D.

***Spillovers and Broader Diffusion***. ATP seeks to fund R&D projects that promise not only a private return to the proposing companies, but also a high public or social return that extends beyond private company return — these are projects characterized by high "spillover" benefits. The ATP looks beyond commercialization activities and private returns of the proposer to effects on others. The "pathway to economic benefits" is viewed by the ATP not only as the commercialization path of the proposer alone, but as multiple paths through which proposer and others are ultimately affected.

Describe how users of your technology, including other producers and downstream consumers, will be affected. Describe how competitors may be affected. How will your contributions to knowledge diffuse beyond your organization to benefit other researchers working on other research projects in the same or other industry sectors? Will you publish research results? Will you patent? Will you license the technology? Will you include user groups in your project teams? Will you form alliances with others in your supply chain, or with other firms in different industry sectors? Do you see potential for beneficial synergistic or complementary effects on others? Overall, what will you do to increase the likelihood that your technology will diffuse beyond your company or your industry, so that your technology will have wider impact and greater benefit to the economy?

***Commitment, Organization Structure, and Management***. Describe your commitment to the project and subsequent commercialization. What are you bringing to the project? What priority will you give to this work in relation to other company activities? Provide evidence of support from higher management within your company, if applicable. Provide evidence of interest and support from potential customers or suppliers, and evidence of support from current or future investors, if applicable. If you have commitments from a state, regional, or local agency that has agreed to contribute cost sharing funds, please indicate the nature of that arrangement and give evidence of the commitment. **For joint ventures, letters of commitment (or excerpts of such letters) verifying the availability of cost sharing funds must be submitted from all proposed members of the joint venture**.

Describe the organizational structure for your project. Describe how R&D staff, management, and manufacturing/product development/ commercialization staff will support an integrated R&D and business plan. Identify known weaknesses in organizational structure and how they will be overcome.

Describe the project management plan. Describe responsibilities and reporting relationships. Identify who is responsible for major technical tasks and major commercialization activities. Does the project manager have sufficient authority to complete the project? Is the management structure sufficiently robust that the project can be completed even if key personnel changes are necessary?

If you are applying as a joint venture, address the following questions: Why was the joint venture structured this way? Why did these particular companies come together? What is the role of each participant and why is it important? Do the participants possess all of the required skills to complete the proposed work?

For joint ventures, indicate the extent of participation by small businesses and describe their importance to the project. Joint ventures should aim to include companies of diverse size, including smaller companies, and possibly other organizations, such as universities and national laboratories.

For large company single proposers, indicate the extent to which subcontractor teaming arrangements are an important feature of the project. Explain how subcontractor relationships with universities, national laboratories, smaller companies, or others may increase the likelihood of public benefits.

For all proposers, identify subcontractor/supplier/collaborator relationships, and describe their importance to the success of the project. Note that ATP recipients are expected to use U.S. subcontractors located in the U.S. to the greatest extent possible. Substantial foreign subcontracting is discouraged. If foreign subcontractors are proposed, the proposer should explain why U.S. sources are not appropriate in view of project goals.

***Experience and Qualifications***. Describe the quality and appropriateness of technical and business staff assigned to the project, and the amount of time each individual will allocate to the project. Briefly highlight education and experience of key personnel. (Present a summary table with two columns specifying for each person: 1. name, project responsibility, and percent time allocation to the project; and 2. education, and relevant experience.)

Discuss relevant past performance of project participant organizations. Describe previous company accomplishments in commercialization of technology. Describe other unique characteristics or capabilities of participant organizations.

Describe the adequacy of company facilities and equipment, and other technical or administrative resources, including relevant resources of all project participants, subcontractors, and other collaborators. If facilities or equipment required for the project are not owned or controlled by the proposing organizations, describe what arrangements have been made to ensure adequate facilities and equipment.

If your company is less than 10 years old, state the year in which your company was formed, and provide a brief company history. For joint-venture proposals, state the year(s) of formation of any principal company less than 10 years old; also indicate whether the joint venture has formed with the purpose of proposing to ATP, or if it is a previously existing joint venture.

List significant Federal R&D awards (if any) within the past five years in the same general technical area. Briefly describe the work and your accomplishments and note the agency and responsible project manager. Explain how this research relates to the work proposed to ATP.

List previous ATP awards or other proposals currently pending ATP review. If you have received a previous ATP award in a closely related technical area, describe how your current proposed project differs from the previously awarded project. ATP will not fund an extension of a previous project, so the newly proposed project must be substantially different from the previously funded project.

Provide information about the past history and performance of your organization(s). Present a table as illustrated in **Figure 2**, with data for the preceding three years (or for the number of years the organization has existed, if less than three years).

**Figure 2. Financial and Employment Information**

| | Year *T-3* | Year *T-2* | Year *T-1* |
|---|---|---|---|

| **Income Statement** | | | |
|---|---|---|---|
| Revenue | | | |
| Cost of Sales (Cost of Goods Sold) | | | |
| R&D Expenditures | | | |
| Net Income Before Taxes | | | |
| Net Income | | | |
| | | | |
| **Balance Sheet** | | | |
| Total Assets | | | |
| Total Liabilities | | | |
| Net Worth (Owner's Equity) | | | |
| | | | |
| **Employment Information** | | | |
| Total Number of Full-time Employees | | | |
| Total Number of Part-time Employees | | | |
| Total Number of Full-time R&D Personnel | | | |
| Total Number of Part-time R&D Personnel | | | |

For large companies with multiple divisions or business units, please clearly identify the reporting entity for which financial and employment information is being presented. Please provide data for the lowest level corporate entity for which such data are available, corresponding to the entity in which the proposed R&D project is to be performed. Include an organization chart or equivalent explanation indicating the position of the project proposer/participant within the overall organization.

# CHAPTER 3: ADMINISTRATIVE AWARD REQUIREMENTS AND PROCEDURES

## A. Award Funding Instrument.

The ATP award funding instrument is a "cooperative agreement." Through the use of the cooperative agreement, the ATP is designed to foster a government-industry partnership to accomplish a public purpose of support or stimulation, unlike Federal "contract" programs where the principal intent is the acquisition of goods or services for the direct benefit or use of the Federal government. Under a cooperative agreement, NIST plays a substantial role in providing technical assistance and monitoring the technical work and business progress through assigned project managers and financial assistance officials. This differs from grant programs where there is no substantial involvement of the funding agency. ATP cooperative agreement recipients are subject to 15 CFR Part 14, *Uniform Administrative Requirements for Grants and Cooperative Agreements with Institutions of Higher Education, Hospitals, other Non-Profit and Commercial Organizations* (http://www.doc.gov/oebam/cfr14.htm).

## B. Continuation of ATP Awards.

While it is certainly our intention to carry projects through to completion, decisions on continuations of multi-year ATP awards beyond the first year (i.e., up to 3 years for single companies and 5 years for joint ventures) will be made by the ATP on an annual basis based on the availability of funds from Congress, satisfactory performance, and will be at the sole discretion of ATP.

## C. Change In United States Ownership Status.

If at any time within the life of an ATP award, any recipient ceases to have a majority control or ownership by individuals who are citizens of the United States, the recipient shall notify the ATP of that fact within 15 days. As stipulated in Chapter 1, C., a finding will be made by NIST in accordance with 15 CFR 295.3.

## D. Patents.

For-profit company recipients may elect to retain title to any invention made during the course of the R&D, subject to the requirements set forth in the ATP legislation, and to reservation of a government license. As discussed in Chapter 1, the ATP legislation includes a provision that requires that patents resulting from ATP awards be held by for-profit companies incorporated in the U.S. Thus, a university, governmental laboratory, or independent research organization cannot retain title to patents resulting from ATP-sponsored R&D, although such organizations can receive mutually agreeable payments (either one-time, or continuing) from the company or companies holding title to the patent. A for-profit corporation organized by a university may be considered a for-profit company for the purpose of owning intellectual property rights arising from an ATP award. In such cases, documentation of the corporation's for-profit status must be provided in the proposal.

In any invention resulting from work performed under an ATP project in which an ATP recipient has acquired title, NIST has the right, in accordance with 15 CFR 295.8(a)(2) and any supplemental regulations of NIST, to require the recipient, an assignee, or an exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms

that are reasonable under the circumstances. If the recipient, assignee, or exclusive licensee refuses such a request, NIST has the right to grant such a license itself if NIST determines that:

1. Such action is necessary because the recipient or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;

2. Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the recipient, assignee, or licensees;

3. Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the recipient, assignee, or licensees; or

4. Such action is necessary because of the requirement that the recipient grant licenses to potential licensees that would be likely to manufacture substantially in the United States or that, under the circumstances, domestic manufacture is not commercially feasible, is not adhered to, or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of the aforementioned requirement.

The preceding information describes NIST's legal rights with regards to patents. However, potential proposers should not interpret these rights as indicating that NIST intends to manage an awardee's intellectual property. Quite the contrary. First of all, these rights only apply to patents resulting from the ATP project itself, and not from work done before or after the ATP project, or other R&D performed by the company in the same time frame that is not part of the ATP-funded tasks. In rare instances, the rights may apply to patents resulting from work done outside the ATP project, but only where use of those patents is integral or necessary for the use of the patents resulting from work done under the ATP project. More importantly, the provisions above would ONLY be invoked under very unique circumstances. For example, if an ATP project developed a cure for cancer, but for some strange reason the company chose not to commercialize the technology, the ATP might, only after verifying that the company had no intention of using the technology, invoke provision 2. above and try to find another company willing to take a license and bring the new development to market. In the over 400 projects funded to date, NIST has never had to exercise the rights noted above.

## E. Audits and Accounting Systems.

Proposers shall provide sufficient funds in the project multi-year budget for a project audit, including each joint venture participant. Subcontractors/subawardees who receive total funding under an ATP project totaling more than **$300,000** each are also subject to the audit requirement. A subcontractor/subawardee is defined as an organization which receives a portion of the financial assistance from the recipient/awardee and assists the ATP recipient/awardee in meeting the project goals but does not include procurement of goods and services. It is the responsibility of the recipient to ensure that audits are performed in a timely fashion. Most routine audits can be performed by the recipient's external CPA. However, the Department of Commerce Office of Inspector General (DoC/OIG) and General Accounting Office (GAO) reserve the right to carry out audits as deemed necessary and appropriate. ATP recipients must be willing to submit to audits (e.g.,

audits of cost-accounting systems, direct-cost expenditures, indirect cost rates, or other periodic reviews) by the Inspectors General or GAO. Periodic project audits shall be performed as follows:

1. For awards less than 24 months, an audit is required at the end of the project.
2. For 2-, 3-, or 4-year awards, an audit is required after the first year and at the end of the project.
3. For 5-year awards, an audit is required after the first year, third year, and at the end of the project.

Budgeting for an audit shall be as follows:

l. Proposers should allocate funds in their proposal budgets under the "Other" direct cost category for the project audit. For joint ventures, this must be included in each participant's budget as each participant is responsible for the performance of their own project audit.

2. If an organization's indirect cost pool includes audit costs, this is acceptable. In these cases, an explanation must be provided in the budget narrative and no audit costs reflected under "Other" costs.

3. If a cognizant Federal agency auditor is resident within the company, the cognizant Federal agency auditor may perform the audit. In these cases, an explanation must be provided in the budget narrative and no audit costs reflected under "Other" costs or "Indirect Costs."

Audit reports are used as a tool by Project managers and grants officials in meeting their responsibilities for ensuring that Federal funds are spent for their intended purposes. Audits of all recipients shall be conducted in accordance with *Government Auditing Standards (GAS),* issued by the Comptroller General of the United States (the Yellow Book) (http://www.gao.gov/special.pubs/publist.htm). If an ATP recipient is required to have an audit performed in accordance with OMB Circular A-133, *Audits of States, Local Government, and Non-Profit Organizations (*3333), the annual Circular A-133 audit is deemed to meet the ATP audit requirement.

If an ATP recipient does not have an annual Circular A-133 audit performed, the recipient should follow the following project audit requirements:

1. Audits for single company recipients shall be conducted using the *NIST Program-Specific Audit Guidelines for Advanced Technology Program (ATP) Cooperative Agreements with Single Companies* (http://www.atp.nist.gov/atp/psag-co.htm).

2. Audits for joint venture recipients shall be conducted using the *NIST Program-Specific Audit Guidelines for Advanced Technology Program (ATP) Cooperative Agreements with Joint Ventures* (http://www.atp.nist.gov/atp/psag-jv.htm).

The recipients of an ATP award must have an accounting system which meets the financial management standards discussed in 15 CFR Part 14, *Uniform Administrative Requirements for Grants and Cooperative Agreements with Institutions of Higher Education, Hospitals, other Non-Profit and Commercial Organizations, Section 21* (http://www.doc.gov/oebam/cfr14.htm). These include:

1. Accurate, current, and complete disclosure of the financial results of the ATP project;

2. Records that adequately identify the source and application of funds for the ATP project;
3. Effective internal controls over and accountability for all funds, property, and other assets;
4. Comparison of outlays with budget amounts;
5. Written procedures for determining the reasonableness, allocability, and allowability of costs in accordance with their applicable Federal cost principles; and
6. Accounting records, including cost accounting records, that are supported by source documentation.

## F. Indirect Cost Rates.

Indirect costs charged to ATP cooperative agreements or used as cost sharing must be calculated in accordance with an approved indirect cost proposal. If a recipient has established an indirect cost rate with its cognizant Federal agency (the Federal agency providing the greatest dollars), the recipient will be asked to submit a copy of the negotiated agreement to the DoC/OIG for verification. Acceptance of indirect cost rates in excess of 100 percent of direct costs is subject to approval by NIST and the DoC/OIG. If an indirect cost rate(s) has not been negotiated prior to receiving the award, then an indirect cost rate proposal must be submitted to the recipient's cognizant Federal agency within 90 days from the date of the award. Provisional rates provided by the joint venture participant in the indirect cost proposal may be used until approval is obtained or indirect cost rates are negotiated. When the Department of Commerce is the recipient's cognizant Federal agency, questions regarding the preparation of the indirect cost proposal should be addressed to the OIG Office in Atlanta at 404-730-2780. Indirect cost rate proposals should be submitted to the following address (with a copy of the transmittal letter only to the NIST Grants Officer):

U.S. Department of Commerce Office of Inspector General
Atlanta Regional Office - Audits
ATTN: Indirect Cost Coordinator
401 Peachtree Street NW, Suite 2742
Atlanta, GA 30308
Facsimile Number: 404-730-2788

## G. Special Rule for the Valuation of Transfers Between Separately-Owned Joint Venture Members.

If a joint venture proposes any transfers of goods, including computer software, and services provided by the transferor related to the maintenance of those goods, from one joint venture member to other separately-owned joint venture members, the provisions in Section 295.25 of the ATP regulations **(see Appendix B)** shall apply. The valuation of such transfers shall be the greater amount of the actual cost of the transferred goods and services as determined in accordance with applicable Federal cost principles, or 75 percent of the best customer price of the transferred goods and services. However, pursuant to Section 295.2(1) of the ATP regulations, in no event shall the aggregate of these allowable costs exceed 30 percent of the non-Federal share of the total cost of the joint research and development program. The term "best customer price" shall mean the GSA schedule price, or if such price is unavailable, the lowest price at which a sale was made during the last 12 months prior to the transfer of the particular good or service.

## H. Highlights of Project Management During an Award.

Proposals selected for funding must perform at a minimum the following project management activities:

1. Participate in workshops and kick-off, annual, and closeout meetings with ATP Project Managers.

2. Submit quarterly financial, technical, and business reports. Update project budgets as needed. Request prior written approval by the NIST Grants Officer, with input from the ATP Project Managers, for any project changes needing prior approval as outlined in the award terms and conditions.

3. Participate occasionally in special studies. The studies will be conducted by NIST for the purpose of evaluating the success of the ATP in achieving its goal of assisting U.S. businesses to improve their competitive position and promoting U.S. economic growth. Customer satisfaction studies will be conducted to solicit feedback from the recipient on the ATP application and award process, so that improvements in the process can be targeted. Economic case studies will be conducted to measure the impact of selected projects on productivity and economic growth. Short case studies may be conducted while the award is active; more comprehensive case studies may be performed after the award has ended.

4. If any ATP participating company undergoes or foresees major structural changes (e.g., a company is being acquired by another company or is acquiring another company) that affect the management or organizational structure responsible for the ATP project, then the new management responsible for committing resources to the ATP project will need to provide ATP with written confirmation of continued commitment consistent with the approved project goals.

## I. Other Requirements.

1. Recipients and subrecipients are subject to all Federal laws and Federal and Department of Commerce policies, regulations, and procedures applicable to Federal financial assistance awards which will be identified in the cooperative agreement award.

2. Unsatisfactory performance under prior Federal awards may result in a proposal not being considered for funding.

3. If proposers incur any costs prior to an award being made, they do solely at their own risk of not being reimbursed by the Federal government.

4. No award of Federal funds shall be made to a proposer or recipient who has an outstanding delinquent Federal debt until either the delinquent account is paid in full, a negotiated repayment schedule is established and at least one payment is received, or other arrangements satisfactory to NIST are made.

5. A false statement on any proposal for funding under ATP may be grounds for denial or termination of funds and grounds for possible punishment by a fine or imprisonment as provided in 18 U.S.C. 1001.

## J. Administrative Questions.

ATP administrative questions should be directed to Barbara Lambis at 301-975-4447, fax 301-869-1150, or e-mail at: barbara.lambis@nist.gov. Financial assistance-related questions should be directed to George White at 301-975-6328, fax 301-840-5976, or e-mail at: george.white@nist.gov.